



Material Moving Occupations

Table of Contents *(scroll or use links below to navigate document)*

Job Overview

Typical Tasks

Skills, Knowledge, and Abilities

Work Environment

Job Outlook and Wages

Trends

Training

Where Do I Find the Job?

Where Can the Job Lead?

Other Sources



View Career Video

Job Overview

Conveyor Operators and Tenders; Industrial Truck and Tractor Operators; and Tank Car, Truck, and Ship Loaders are logistics-related occupations that are found in a wide variety of industries. These workers move raw materials or completed products inside manufacturing plants, storage facilities, supply yards, or loading and shipping areas. Material Movers play an important role in the delivery of supplies and products to manufacturers, wholesale businesses, or retail markets.

Conveyor Operators and Tenders lift and load materials onto conveyor systems. They coordinate the flow of materials while feeding items properly onto conveyor belts that move materials to or from stockpiles, processing stations, departments, or vehicles. Conveyor Operators and Tenders read production and delivery schedules and consult with supervisors to determine sorting and transfer procedures, arrangement of packages on pallets, and destination of loaded pallets. They also stop equipment to clear jams using poles, bars, and hand tools or remove damaged materials from conveyors. Conveyor Operators and Tenders use hand tools to affix identifying information labels to products or materials.

Industrial Truck and Tractor Operators drive and control industrial trucks or tractors equipped to move materials around a warehouse, storage yard, factory, or construction site. They may work both indoors and outdoors. The work includes loading and unloading freight cars, trucks, aircraft, and ships. Industrial vehicles are usually called a forklift or lift truck and are equipped with a hydraulic lifting mechanism and forks. Workers may also drive tractors that pull trailers loaded with materials, goods, or equipment within factories and warehouses, or around outdoor storage areas. Industrial Truck and Tractor Operators may refuel or recharge vehicles, check the oil and battery, and make minor repairs and adjustments, when necessary.

Tank Car, Truck, and Ship Loaders operate ship loading and unloading equipment, conveyors, hoists, and other specialized material handling equipment such as railroad tank car unloading equipment. They may gauge or sample shipping tanks and test them for leaks. When unloading cars, Tank Car Loaders connect a hose to outlet plugs on cars and attach a special dome, using wrenches. They start pumps or turn valves to admit compressed air into the tank car and force liquids into a storage tank.

Material Moving Occupations

Typical Tasks

Conveyor Operators and Tenders

- ➔ Inform supervisors of equipment malfunctions that need to be addressed.
- ➔ Load, unload, or adjust materials or products on conveyors by hand, by using lifts, hoists, and scoops, or by opening gates, chutes, or hoppers.
- ➔ Manipulate controls, levers, and valves to start pumps, auxiliary equipment, or conveyors, and to adjust equipment positions, speeds, timing, and material flows.
- ➔ Observe conveyor operations and monitor lights, dials, and gauges, in order to maintain specified operating levels and to detect equipment malfunctions.
- ➔ Observe packages moving along conveyors in order to identify packages and to detect defective packaging.
- ➔ Position deflector bars, gates, chutes, or spouts to divert flow of materials from one conveyor onto another conveyor.
- ➔ Read production and delivery schedules, and confer with supervisors, to determine sorting and transfer procedures, arrangement of packages on pallets, and destinations of loaded pallets.

Industrial Truck and Tractor Operators

- ➔ Move controls to drive gasoline or electric powered trucks, cars, or tractors and transport materials between loading, processing, and storage areas.
- ➔ Move levers and controls that operate lifting devices, such as forklifts, lift beams and swivel-hooks, hoists, and elevating platforms, in order to load, unload, transport, and stack material.
- ➔ Position lifting devices under, over, or around loaded pallets, skids, and boxes, and secure material or products for transport to designated areas.
- ➔ Manually load or unload materials onto or off pallets, skids, platforms, cars, or lifting devices.
- ➔ Perform routine maintenance on vehicles and auxiliary equipment, such as cleaning, lubricating, recharging batteries, fueling, or replacing liquefied-gas tank.
- ➔ Operate or tend automatic stacking, loading, packaging, or cutting machines.
- ➔ Signal workers to discharge, dump, or level materials.

Tank, Car, Truck, and Ship Loaders

- ➔ Check conditions and weights of vessels to ensure cleanliness and compliance with loading procedures.
- ➔ Connect ground cables to carry off static electricity when unloading tanker cars.
- ➔ Copy and attach load specifications to loaded tanks.
- ➔ Lower gauge rods into tanks or read meters, in order to verify contents, temperatures, and volumes of liquid loads.
- ➔ Observe positions of tank cars passing loading spouts, and swing spouts into the correct positions at the appropriate times.
- ➔ Operate conveyors and equipment to transfer grain or other materials from transportation vehicles.
- ➔ Test vessels for leaks, damage, and defects, and repair or replace defective parts as necessary.

Material Moving Occupations

- ➔ Operate industrial trucks, tractors, loaders, and other equipment to transport materials to and from transportation vehicles and loading docks, and to store and retrieve materials in warehouses.

*Detailed descriptions of these occupations may be found in the Occupational Information Network (O*NET) at online.onetcenter.org.*

Important Skills, Knowledge, and Abilities

- ➔ Reading Comprehension — Understanding written sentences and paragraphs in work-related documents.
- ➔ Active Listening — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- ➔ Equipment Maintenance — Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.
- ➔ Operation and Control — Controlling operations of equipment or systems.
- ➔ Operation Monitoring — Watching gauges, dials, or other indicators to make sure a machine is working properly.
- ➔ Mathematics — Using mathematics to solve problems.
- ➔ Production and Processing — Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.
- ➔ Transportation — Knowledge of principles and methods for moving people or goods by air, rail, sea, or road, including the relative costs and benefits.
- ➔ English Language — Knowledge of the structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- ➔ Mechanical — Knowledge of machines and tools, including their designs, uses, repair, and maintenance.
- ➔ Arm-Hand Steadiness — The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
- ➔ Multilimb Coordination — The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.
- ➔ Depth Perception — The ability to judge which of several objects is closer or farther away from you, or to judge the distance between you and an object.
- ➔ Control Precision — The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
- ➔ Written Comprehension — The ability to read and understand information and ideas presented in writing.
- ➔ Reaction Time — The ability to quickly respond (with the hand, finger, or foot) to a signal (sound, light, picture) when it appears.
- ➔ Static Strength — The ability to exert maximum muscle force to lift, push, pull, or carry objects.
- ➔ Trunk Strength — The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without ‘giving out’ or fatiguing.

Material Moving Occupations

Work Environment

Some Material Moving Workers may work at great heights or outdoors in all weather conditions. They may be exposed to harmful materials or chemicals, fumes, odors, loud noises, or dangerous machinery. However, the risk of injuries are minimized by following proper safety procedures and by wearing protective clothing, such as gloves, hardhats, and devices to protect the eyes, mouth, or hearing.

Material Movers usually work regular eight-hour shifts. However, some industries operate around the clock and may require working evening or graveyard shifts.

Some Conveyor Operators; Industrial Truck and Tractor Operators; and Tank Car, Truck, and Ship Loaders may belong to a variety of unions, such as the Teamsters, Longshoremen's, or Warehousemen's union, depending on the industry and employer.

California's Job Outlook and Wages

The California Outlook and Wage table below represents the occupation across all industries.

Standard Occupational Classification	Estimated Number of Workers 2004	Estimated Number of Workers 2014	Average Annual Openings	2006 Wage Range (per hour)
Industrial Truck and Tractor Operators				
53-7051	69,400	81,400	2,510	\$11.20 to \$19.21
Conveyor Operators and Tenders				
53-7011	5,800	6,800	270	\$10.99 to \$17.41
Tank, Car, Truck, and Ship Loaders				
53-7121	2,100	2,100	60	\$13.03 to \$21.92

Wages do not reflect self-employment.

Average annual openings include new jobs plus net replacements.

Source: www.labormarketinfo.edd.ca.gov, Employment Projections by Occupation and OES Employment & Wages by Occupation, Labor Market Information Division, Employment Development Department.

Trends

Employment of Tank Car, Truck, and Ship Loaders is expected to remain stable over the 2004–2014 projections period. However, opportunities will continue to arise from the need to replace workers who retire or leave the labor force for other reasons.

Employment of Industrial Truck and Tractor Operators, and Conveyor Operators and Tenders is expected to grow at an average rate for all other occupations over the 2004–2014 period.

However, improvements to material moving equipment, including the increasing automation of material handling in factories and warehouses, will continue to raise productivity and limit the demand for Material Movers.

Material Moving Occupations

Training/Requirements/Apprenticeships

Conveyor Operators and Tenders; Industrial Truck and Tractor Operators; and Tank Car, Truck, and Ship Loaders usually learn their skills informally, on the job, from more experienced workers. Although not required, many employers prefer a high school diploma.

Recommended High School Course Work

High school students interested in this kind of work should take general course work in language arts, mathematics, and automobile mechanics, as well as computer technology courses since material-moving equipment is becoming increasingly more automated.

Where Do I Find the Job?

Direct application to employers remains one of the most effective job search methods. Job seekers should apply directly to employers who employ Material Movers.

Use the *Search for Employers by Industry* feature on the *Career Center* page at www.labormarketinfo.edd.ca.gov to locate employers in your area. Search under the following industry names to get a list of private firms and their addresses:

- | | |
|---|--|
| ➤ Business to Business Electronic Markets | ➤ Meat Processed from Carcasses |
| ➤ Couriers | ➤ Other Building Material Dealers |
| ➤ Employment Placement Agencies | ➤ Professional Employer Organizations |
| ➤ General Freight Trucking | ➤ Refrigerated Warehousing and Storage |
| ➤ General Warehousing and Storage | ➤ Temporary Help Services |
| ➤ Hardware Stores | ➤ Wholesale Trade Agents and Brokers |
| ➤ Home Centers | |

Search these **yellow page** headings for listings of private firms:

- | | |
|---|--------------------------------|
| ➤ Air Cargo & Package Express Service | ➤ Shipping Services |
| ➤ Beverages -Soft Drinks, Mixers, Etc.- Distributors and Bottlers | ➤ Ships & Ship Operation |
| ➤ Conveyors & Conveying Equipment | ➤ Trucking |
| ➤ Freight Forwarding | ➤ Trucking-Motor Freight |
| ➤ Lumber-Retail | ➤ Warehouses-Private |
| ➤ Lumber-Wholesale | ➤ Warehouses-Public-Commercial |
| ➤ Manufacturers' Agents & Representatives | |

Material Moving Occupations

Where Can the Job Lead?

Promotional opportunities are somewhat limited. However, experienced Material Movers may qualify to become trainees as construction trades workers, production workers, or mobile equipment mechanics. Some may advance into supervisory positions.

Related Occupations

Forklift Operators (see *Occupational Guide No. 190*)
Gas Compressor Operators
Grinding, Honing, Lapping, and Deburring Machine Set-Up Operators
Janitors and Cleaners (see *Occupational Guide No. 88*)
Letterpress Setters and Set-Up Operators
Plastic Molding and Casting Machine Setters and Set-up Operators
Shipping and Receiving Clerks (see Logistics Profile)
Stock Clerks (see Logistics Profile)

Other Sources

California Association of Regional Occupational Centers and Programs
www.carocp.org/carocps.html

Council of Supply Chain Management Professionals
www.cscmp.org

Conveyor Equipment Manufacturers Association
www.cemanet.org

International Brotherhood of Teamsters
www.teamster.org

Industrial Truck Association
www.indtrk.org

International Warehouse Logistics Association
www.iwla.com

International Longshore and Warehouse Union
www.ilwu.org

Material Handling Industry of America
www.mhia.org

National Association of Manufacturers
www.nam.org

Pacific Maritime Association
www.pmanet.org